

In With the Tide

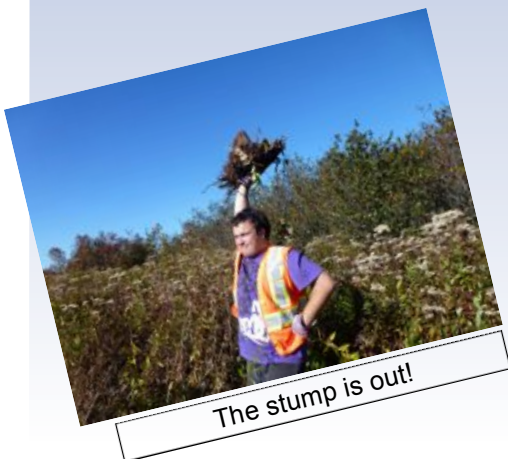
The Bay of Fundy Discovery Centre Association Newsletter



Our Fundy-Our Future

In this Issue:

Drifter Search	2
Balancing Rock Trail	3
Lichens Everywhere!	3-4
Plant of the Cove	4-5
Trail Photos	5
AGM Announcement	5
GOMI Reports	6-7
Getting Out	8
Super Tide photos	9
UFO Letter	9
Who Are We?	10
Join us!	10



The stump is out!

ICS, O2, GOMI and BoFDCA Project

By Roger Outhouse

That complex series of letters is to introduce a rather simple overdue project of building a trail on school property to the old Fundy Shore Road that extends from Highway 217 to the Freeport Brook. Joan O'Neil approached the Bay of Fundy Discovery Centre Association (BoFDCA) with a request to assist her Options and Opportunities (O2) class in planning and supplying tools to construct a short trail behind Islands Consolidated School (ICS) that would create a short safe route to Lovers Lane.

The Gulf of Maine Institute (GOMI) youth environmental team had decided a year ago to be supportive of such projects that are sustainable and positive for communities in our area of Digby Neck and Islands. Since many of that team are also O2 students it was an opportunity to fulfill the goals of our talented youth. Once the trail was plotted out, connecting school to the road, students in grades 11 and 12 cleared

the trail space within three work sessions. Watching them work as a team was a real statement as to how we can all be proud of what can be achieved when youth are involved in leading such initiatives.

The trail can be used, but over the next little while there are other improvements to be made including extending the trail by clearing the old road that extends to the Freeport Brook. For at least a decade, the possibility of walking to the brook has become very difficult. Thanks to everyone involved in the ongoing project. This is a perfect example of what can happen with cooperation.

Some of the helping hands take a photo break.



Drifters Are Among Us

By Roger Outhouse

On September 26th 2014 four optimistic souls struck out from the Centreville, Digby County wharf in search of a marine drifter. This type of drifter is a device constructed to float on the surface with underwater sails that carry it by ocean currents rather than the wind. This one was the creation of the New Hampshire Science Teachers Association in New England. It was launched in early July, 2014.



It wasn't an easy trek.
Karla Kelly photo

Equipped with a transmitter, a drifter sends signals to satellites that then track the entire journey. Over a number of years there have been hundreds of launches

Look! I found it!
Karla Kelly photo



Treasure hunting is great fun when the sun is shining and the rocks are dry.

Karla Kelly photo

throughout the Gulf of Maine. In recent years the Gulf of Maine Institute (GOMI) youth teams along with other groups have become involved in construction and monitoring a number of drifters around the Gulf. NOAA (National Oceanic and Atmospheric Administration) is overseeing the data collected and this continually adds to the knowledge of our marine waters and currents throughout the eastern seaboard from New England to the Bay of Fundy and even to the Atlantic Ocean off of Barrington, Nova Scotia. They can be programmed to test for a number of features including currents, temperatures, salinity, etc. Currently this information is being used to understand and in some instances help marine wildlife.

The transmitter works continuously for months under the toughest conditions our ocean throws at it and never quits till the battery runs out or it is dashed to



Don't drop that camera!
MacKenzie Kelly photo

pieces on the shores like this one. This transmitter was barely visible as it was separated from its sails that had vanished. Close by, buried under a pile of rockweed were the remnants of its aluminum structure and float. Not only did we have an opportunity to watch this dramatic voyage unfold on the internet map but we were more excited to discover its resting place and bring its story to an end. Hopefully the transmitter will still be strong enough to be transplanted to a new drifter and another voyage to sea in its future.

To view the trail this drifter took, its track is posted at http://www.nefsc.noaa.gov/drifter/drift_nhsta_2014_1.html.



Balancing Rock Trail- Looking Great!

By Roger Outhouse



The new sign is perfect!

Roy Cossaboom to redevelop the Balancing Rock Trail in Tiverton. The trail has undergone a considerable refit with 460 metres of new trail and five new interpretive panels being part of this new development. The parking area also got some needed enhancement with a new trail gateway at the entrance and a new 12 ft high site sign which is a photographic cut out of the balancing rock itself. The parking lot buildings have been given a new coat of paint and some repairs after a hard winter. The wetland trail has also been topped up with 4 inches of clear stone to resolve a puddle problem between the two boardwalks. The improvements have given the

visitor a more in-depth understanding of the importance of the trail's environments and the connection between the culture and the marine ecology. The trail has become an iconic trail experience for the area and a platform to promote other trails in the Digby area.

For several months the Municipality, the Department of Economic and Rural Development and Tourism and the Digby Recreation Commission have been working with the Friends of the Islands Trails Society, the Freeport Discovery Centre and

Newly created portions of the trail reveal photo opportunities at every turn.



The Balancing Rock Trail through the Eyes of a Lichenologist

By Roger Outhouse

Two years ago our Gulf of Maine Institute (GOMI) Digby Neck/Islands youth were inspired by the Barrington GOMI Team's efforts to construct a lichen walk near their high school. To that end we contacted Frances Anderson (lichenologist) who had inspired their efforts. Frances is currently retired but very busy doing a number of activities including a lichen field guide to help others wanting assistance discovering species of lichens that exist in our region. She is a Research Associate with the Nova Scotia Museum and has presented to numerous



Lichenologist Frances Anderson examines a tree bearing numerous species of lichens along the world famous Balancing Rock Trail. The smile is so appropriate for a scientist who thoroughly loves her field of expertise.

to begin with these are two types of living cells (algae plus fungus) that have adapted together as a single living organism. Many people will have heard of Old Man's Beard or British soldiers (two lichens readers will see in our area).

It was exciting that Frances accepted our invitation and agreed to come to the Balancing Rock Trail for a tour and help us with an interpretive panel on lichens. She is an amazing professional who shows passion for lichens and enjoys sharing her knowledge with others. I never suspected we

groups about the mysterious life of lichens.

By now some readers are saying I can't really remember or have even heard about lichens; what are they? Well

The Old Man's Beard lichen hanging from the tree branch is one of at least three species of Usnea found along the trail. Its thread-like structures are preferred by many birds in the building of their nests.



Lichens, lichens, everywhere. Play I Spy the next time you are on the trail.



had so many types of lichens along such a short trail and that there is so much to learn about the different varieties. They love moist habitats with available sunlight.

Frances was constantly stepping off the trail to check out the lichens with a magnifying hand lens. It was great to share those views and to recognize the characteristics of these beautiful and fascinating plants. Hopefully many of you will visit the trail and gain a new appreciation for the lichens that inhabit the entire route to the Balancing Rock. As you gaze up at the iconic rock you might just notice that it is wearing several kinds of lichens.



The black lichen (*Leptogium cyanescens*) on the tree bark in the photo is an environmental indicator of air purity and is food for animals such as slugs while supplying a habitat for other tiny invertebrates.



If you ever drive behind a license plate bearing this lettering you are probably watching Frances Anderson on her way to research the mysterious lichens.

Plant of the Cove: Common Burdock

By Roger Outhouse

Common burdock, also known as burweed and wild rhubarb is a thick shrub-like herbal plant (can grow to 1.5 m) with very large leaves up to 50 cm with its lower leaves being heart-shaped. The surface of the leaf is dark green with a wooly-looking underside. The prickly flowers are pink to lavender in color and bloom from July through October. The joy of pulling burdocks from a long-haired cat or dog ranks up there with extracting chewing gum from human hair. Long before children had Velcro darts and arrows to

battle with, older generations of youth had the burdock seed pod to throw at others. There was no question as to who was hit as they wore the sticky seed pods till removed and thrown back at the attackers. The brilliant way that the burdock has for attaching its seeds to animals that have spread the plant to every state and province in North America is also touted as the inspiration behind the inventor of manmade Velcro. It was surprising to learn that there have been small birds that have died because their feathers have got caught in the blossoms.

The common burdock was brought here by ancestors from Europe with the intention of providing both nourishment for their families and a medicinal wonder capable of treating many ailments. The plant is rich in iron and all parts of the plant are edible. Young leaves, if boiled well, make good additions to soups or stews. First year plant roots can be peeled and sliced up for use in a stir-fry, soups or served as a vegetable. These same roots can be mashed to form a pulp that can be made into patties for frying. First Nations have been known to

dry them for roasting in winter and even grinding the root for a coffee substitute. There are even reflections involving use of burdock in salads, pickling and candy making. One would never suspect that this annoying stickler of a plant could be touted as a purifying agent. Even today burdock leaves are thought to have positive effects on the liver and kidney. Historically burdock tea has been used to treat rheumatism, high blood pressure, vertigo, and gout. The leaves have also been crafted into poultices to combat burns, and a host of skin infections and conditions



ranging from hives to psoriasis. It is also recommended as a medicine to help dissolve kidney and gall stones. The seeds of burdock contain an ingredient which is useful in the treatment of skin abscesses, insect and snake bites, and scarlet fever. One never knows from where the next miracle cure might come.

While Taking a Spring Walk on the Balancing Rock Trail!



Wild Lily of the Valley (Spring is here!)



Maple leaves unfolding

Check out the Ravens nest while descending the stairs to the Balancing Rock next to shore.



ANNUAL GENERAL MEETING

Please join the Directors of the Bay of Fundy Discovery Centre for our AGM on Friday 21 November at 2:50 pm at the Freeport Development Centre on Long Island.

GOMI Youth Connect With the Environment in Massachusetts

Urban Ecology in Lowell, Massachusetts

By Taylor Barnaby

My 2014 GOMI Summer Conference week was spent mainly in the city of Lowell, Mass., USA visiting locations and participating in the online Land Science Internship Simulation. Along with our teacher chaperones our team also had Sally Farrow to help guide us through our week. Being both passionate about her community and the environmental state it is in, she was also very informative; the week would not have gone so smoothly without her. Once we got our acceptance letters into the internship program it was time to get to work. The first few days took a little getting used to but by the end of the week we were professionals at submitting notebooks and meeting with stakeholders. The internship lasted 3 days and within that time we had met with

environmental groups of Lowell, listened to their concerns, and completed a presentation along with our own map design of Lowell with everyone's needs being met. Even though the internship was online, we were able to take many fieldtrips to get a better understanding of Lowell. The first one was located right in front of Middlesex Community College at the new trail. Here is where we learned how important it is to keep everyone's concerns in mind, and also seeing how much improvement can be made in undeveloped land. Later that day we got to visit Congresswoman Nikki Tsongas's office, where we heard some very interesting conversations on the environmental impact people are having in their communities.

The last day we spent in Lowell we got to go to the Lowell-Dracut-Tyngsboro State Forest to see more of the wildlife of Lowell and to also get a better understanding of some of the concerns that were presented from the stakeholders. The week turned out to be a very educational and fun experience, and I feel like I can speak for everyone on the Urban Ecology theme team by saying that this was the best internship we will ever have.



Our Urban Ecology Team

GOMI SUMMER CONFERENCE 2014 – A Hive of Activity

By Carter Thurber

This past summer had quite the interesting start for me. As soon as school was over, I was rushed off with some of my closest friends for the start of an adventure. As part of the Gulf of Maine Institute, Taylor Barnaby, Kelsi Sullivan, Maeve Dixon, and I all felt it was important to attend the annual GOMI summer conference. This year's conference just happened to

take place in Massachusetts, where we were all excited to travel.

After the amazing (and long!) trip, we arrived at our destination: a small retreat known as Adelynrood. The retreat was a wonderful place to spend our week in the United States. The area was beautiful and the building was calming and pleasant (and the food was excellent!).

Each of our group members had to split up for most of the week and spend some time learning new things about our world with new groups of people. The group I was part of learned about beekeeping. I enjoyed it a lot. I was able to learn all kinds of things about bees, from how to care for them, to their behavior, to their biological capabilities. I discovered that bees are more

complex than I had ever imagined.

After an initial exposure to a wealth of information during the first few days, we spent a lot of our time observing the bees and organizing a presentation to the other groups and a guest panel about what we learned. We observed the bees outdoors and learned how adaptable they can be to new surroundings. We also observed an entire bee hive contained in a box while indoors. I really enjoyed spending time with the bees

outside (though, it did hurt to get stung!).

We organized what we learned and presented it as a group at the end of the week. This allowed all of us to practice our public speaking, something I am only starting to get more comfortable with.

Aside from learning about the environment, we also spent some time during the week participating in fun activities that helped break the ice between those who had never been to the conference before (myself included).

One of my favourite parts of the week was the talent show that occurred part way through the conference. This event was a great idea as it allowed everyone to open up and get even more comfortable with the other members in the large group. I greatly enjoyed showing a video of my own making to the group and even



The white cell in the middle is an uncapped queen bee nursing cell.

participating in an improv performance with some new friends.

Overall the week was a wonderful experience. I enjoyed everything we did and I still miss where we stayed and the people we met. My newly-found beekeeping knowledge will be put to use at home as my father has recently purchased a hive of his own.

The conference was incredible and I would recommend the experience to anyone.



Beekeepers, Dean and Laurie looking for the queen bee



Our Digby Neck/Islands Team presents their plans for 2014-15

The rain didn't stop us from posing for the annual group photo.



Looking smart in the library, what a team!



So Much to Explore- Cellphone free!

By Anna-Marie MacKenzie Kelly

Can you believe it? A family without a cell phone spent a few weeks visiting us in Little River. My sister, her husband and 13-year-old daughter do not have cell phones, tablets or any electronic device except a camera.

When I asked my niece what she was interested in doing while they were here, her answer was, "Explore!" She

even went so far as to plan and map out what we would do each day.

We bicycled to Lake Midway for swims and visited Fort Anne, Port Royal and Victoria Beach. We hiked around Little River, hiked the Balancing Rock Trail and the trail to Flour Cove. We camped at Blomidon Park and enjoyed the outdoor theatre at Ross Creek. We explored Sandy Cove Beach and some days, stayed around home and enjoyed picking fresh produce from the garden.

It was so refreshing to observe my teenage niece connecting with the nature around her. If it wasn't for having to catch ferries and stop for meals. I think she would still be discovering

amazing things at Flour Cove and on Victoria Beach.

Yes, we live in an amazing place. There are so many little spots to wander into and crevices to explore. Let's all take the time to leave the electronic world in which we live and really see what is on our doorstep.



Amazing colours in a tidal pool at Flour Cove

Yes, they tried to push over the Balancing Rock!



The View From the Rock: Mount Shubael

By Anna-Marie MacKenzie Kelly

Heading through Sandy Cove towards Digby, look up, way up just slightly to your left and you will see a vast rock face. There is a little gem in Sandy Cove- the trail up Mount Shubael. It is a rugged route with the most spectacular view once at the top of the rock face. (My niece will have to return for another visit to take in this hike, and many others.)

The leaves were just beginning to change their colours on this bright sunny day at the end of September when three of us decided to go for a climb. There were lots of

blackberries to munch on along the way but once at the top, oh, the views!- look left over St. Mary's Bay, look right to the mighty Bay of Fundy, look straight ahead to the picturesque village of Sandy Cove with its cluster of three little churches, look down and see the rooftops and fields dotting the landscape.

It is hard to pull oneself away for the trek back down the hill. One can sit on the rock many times and always enjoy the



breathhtaking scenery and return back down the hill feeling refreshed.

Karla Kelly photo

If you do decide to check out Mt. Shubael, please remember and respect that this is private property.



The ferry is almost level with the wharf in Tiverton.



Floating building in Little River?

Supertide: Noon, October 9, 2014

Photos by Anna-Marie MacKenzie Kelly

Little River is no so little!



Not much room left under the bridge!



A Letter about Sandy Cove’s UFO (Unidentified Floating Object)

It had been asked: from where did the free fall lifeboat currently moored in Sandy Cove originate?

It was originally a part of a ship in the deep sea tub class known as Neftegaz - an ocean going tug used to position and anchor ocean drilling platforms in Russian waters. This ship was registered, owned and operated by a company in Murmansk, Russia. There are many ships in the Neftegaz class - the design has visually changed very little over the decades.

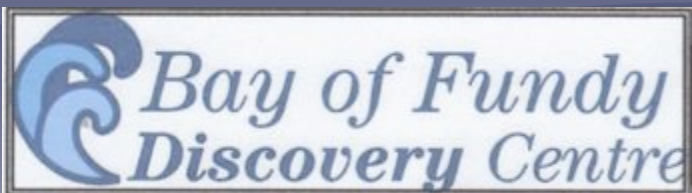
There is the very remote possibility this lifeboat was with Neftegaz-23. This ship has been recently sold to China Yantai Salvage which renamed the vessel to Dezhi and the ship appears to still be in active service but a photograph hasn't been found.

If the stripped free fall lifeboat was assigned to Neftegaz 23 then it was built in Poland, owned and operated by a Russian company for oil field service work for several decades, then having three additional names with three new owners and involved with at least one major disaster (Tigr, Cape Point and Seaways 7) before being renamed yet again to Dezhi and now located and presumably working in China. How it ended up in Sandy Cove is still a mystery.

The Neftegaz class has numerous ships and some have been hired out to or possibly purchased by companies working in the Atlantic - they do travel all of the world's oceans. There may be a link there but I haven't as yet found one.

Thanks

David M. Boland



Our Fundy-Our Future

Bay of Fundy Discovery Centre Association Board of Directors for 2013-4

- Roger Outhouse (Chair)
Peter Morehouse (Vice Chair)
Anna-Marie MacKenzie Kelly (Secretary)
Bonnie MacLachlan (Treasurer)
Terese Crocker
Frank Garron

ANNUAL GENERAL MEETING

Please join the Directors of the Bay of Fundy Discovery Centre for our AGM on Friday 21 November at 2:50 pm at the Freeport Development Centre on Long Island.



The Bay of Fundy Discovery Center Association

PO Box 66
Freeport, NS
B0V 1B0
routhouse51@gmail.com
In With the Tide:
anna-marie.mackenzie-kelly@mail.mcgill.ca

MEMBERSHIP FORM

Name: _____

Mailing Address: _____

Email: _____

Telephone: _____ Date: _____

Please circle the applicable membership category:

- Individual Membership: \$10.00
Family Membership: \$25.00
Patron: \$500.00
Association/Organization \$50.00
Business: \$100.00
One Time Donation: \$ _____

Please make cheque payable to: The Bay of Fundy Discovery Centre Association and mail to the address above. Charitable receipts are issued.